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54 **Topical preparations for human skin irritations.**

57 A topical preparation for the alleviation of human skin irritations, including chapping, reddening, and tenderness, contains 8 Hydroxy Quinoline Sulfate or Parachloro-metaxyleneol in a formulation of carrier ingredients. The topical formulations can be in wipe-on stick form, lotions, powders, aerosols, creams, ointments, jellies and oils. The formulations are useful in combatting diaper rash, foot rash, hand and face chapping and other forms of minor human skin irritations.

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Applicant: TERAD International, Inc., Ogden, Utah 84401  
U.S.A.

Title: Topical Preparations for Human Skin Irritations

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This invention relates to topical preparations for alleviation of minor human skin irritations, including diaper rash.

5 Parents have long recognized the discomfort caused to babies by the skin irritations known as diaper rash. When the breakdown of urea absorbed by a baby's diaper occurs, irritating combinations of ammonia result which cause skin irritation and can lead to serious skin in-  
10 fections of the baby's bottom if left untreated.

Numerous attempts have been made to ameliorate the adverse effects of diaper rash and similar skin irritations. Liberal use of talcum powder and other agents, such  
15 as baby oils and the like have been used for generations to absorb the urea and ammonia compounds or coat the baby's bottom to prevent or lessen the effects of the rash. More recently, creams, lotions and oils containing other ingredients have been prepared to treat diaper rash. Prior  
20 art attempts include those found in U.S. Patents Nos. 3,935,862; 3,964,486; 4,117,187; and 4,385,632. These and other preparations commercially available have been unsuccessful in doing more than reducing the adverse influence of the ammonia by-products of urea or in protect-  
25 ing the baby's bottom from prolonged exposure to the effects of ammonium compounds on the baby's skin.

However, once skin irritations, such as chapping, reddening, tenderness and the like, begin to appear, these preparations do little more than attempt to isolate the baby's skin until the body's natural healing processes reverse the irritation of the skin and the naturally healthy skin condition is gradually achieved.

It is therefore an objective of this invention to provide a preparation to aid in the care of skin irritations, such as chapping, rashes, reddening, tenderness and the like.

It is an additional objective of the invention to provide a topical preparation in a variety of carriers to aid in caring for skin irritations.

These and other objectives which will become apparent are achieved with the invention described below.

A topical preparation for the alleviation of human skin irritations, including chapping, reddening, and tenderness, contains 8 Hydroxy Quinoline Sulfate or Parachlorometaxlenol in a formulation of carrier ingredients. The topical formulations can be in wipe-on stick form, lotions, powders, aerosols, creams, ointments, jellies and oils. The formulations are useful in combatting diaper rash, foot rash, hand and face chapping and other forms of minor human skin irritations.

A number of formulations of the invention have been made which can be employed to aid in the care of minor human skin irritations. Several examples of preferred embodiments of the invention follow to illustrate the range

of formulations and the types of preparations available within the scope of the invention.

EXAMPLE No. 1

5

**DIAPER RASH CONTROL STICK**

	<u>Contents</u>	<u>Percentage</u>
	Mineral Oil	51.60
10	Polyethylene	15.00
	Petrolatum Jelly	15.00
	Talc	12.00
	Lanolin	3.00
	Allantoin	1.00
15	Kaolin	1.00
	Titanium Dioxide	1.00
	8 Hydroxy Quinoline Sulfate	.30
	Iron Oxides	.05
	Fragrance	.05

20

EXAMPLE No. 2

**DIAPER RASH CONTROL STICK**

	<u>Contents</u>	<u>Percentage</u>
25	Mineral Oil	51.60
	Polyethylene	15.00
	Petrolatum Jelly	15.00
	Talc	12.00
30	Lanolin	3.00
	Allantoin	1.00
	Kaolin	1.00
	Titanium Dioxide	1.00

Parachlorometaxylenol	.30
Iron Oxides	.05
Fragrance	.05

5 EXAMPLE No. 3

## DIAPER RASH LOTION

	<u>Contents</u>	<u>Percentage</u>
10	Water	68.59
	Aloe	7.00
	Propylene Glycol	2.67
	Bee Pollen	1.50
	Collagen	.30
15	TEA	.90
	Stearic Acid	4.00
	Glyceryl Stearate	3.50
	IPM	5.00
	Cetyl Alcohol	.80
20	JoJoBa Oil	.30
	Ergocalciferol	.10
	Tocopherol	.10
	Macademia Oil	.10
	Herbs Tea	4.00
25	Germaben II	.83
	Fragrance	.01
	8 Hydroxy Quinoline Sulfate	.30

EXAMPLE No. 4

## DIAPER RASH LOTION

5	<u>Contents</u>	<u>Percentage</u>
	Water	68.59
	Aloe	7.00
	Propylene Glycol	2.67
	Bee Pollen	1.50
10	Collagen	.30
	TEA	.90
	Stearic Acid	4.00
	Glyceryl Stearate	3.50
	IPM	5.00
15	Cetyl Alcohol	.80
	JoJoBa Oil	.30
	Ergocalciferol	.10
	Tocopherol	.10
	Macademia Oil	.10
20	Herbs Tea	4.00
	Germaben II	.83
	Fragrance	.01
	Parachlorometaxylenol	.30

25 EXAMPLE No. 5

## DIAPER RASH AEROSOL TYPE

	<u>Contents</u>	<u>Percentage</u>
30	Water	68.59
	Aloe	7.00
	Propylene Glycol	2.67
	Bee Pollen	1.50

	Collagen	.30
	TEA	.90
	Stearic Acid	4.00
	Glyceryl Stearate	3.50
5	IPM	5.00
	Cetyl Alcohol	.80
	JoJoBa Oil	.30
	Ergocalciferol	.10
	Tocopherol	.10
10	Macademia Oil	.10
	Herbs Tea	4.00
	Germaben II	.83
	Fragrance	.01
	8 Hydroxy Quinoline Sulfate	.30

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EXAMPLE No. 6

## DIAPER RASH AEROSOL TYPE

20	<u>Contents</u>	<u>Percentage</u>
	Water	68.59
	Aloe	7.00
	Propylene Glycol	2.67
	Bee Pollen	1.50
25	Collagen	.30
	TEA	.90
	Stearic Acid	4.00
	Glyceryl Stearate	3.50
	IPM	5.00
30	Cetyl Alcohol	.80
	JoJoBa Oil	.30
	Ergocalciferol	.10
	Tocopherol	.10

	Mecademia Oil	.10
	Herbs Tea	4.00
	Germaben II	.83
	Fragrance	.01
5	Parachlorometaxyleneol	.30

EXAMPLE No. 7**CREAM**

10

	<u>Contents</u>	<u>Percentage</u>
	Stearic Acid	4.00
	GMS	8.00
	Prop. Parobeu	.10
15	Mineral Oil	10.00
	Wickenol 163	2.00
	Solvlan 98	2.40
	Acetulan	1.60
	Vitamin E	.80
20	Avacado Oil	2.00
	Selione	.80
	Germall-115	.30
	Methylparabeu	.20
	Allantoin	.20
25	P Glycol	4.00
	Dowicil 200	.05
	Aloe	1.00
	Water	61.45
	TEA	.80
30	8 Hydroxy Quinoline Sulfate	.30

EXAMPLE No. 8

## CREAM

5	<u>Contents</u>	<u>Percentage</u>
	Stearic Acid	4.00
	GMS	8.00
	Prop. Parobeu	.10
	Mineral Oil	10.00
10	Wickenol 163	2.00
	Solvlan 98	2.40
	Acetulan	1.60
	Vitamin E	.80
	Avacado Oil	2.00
15	Selione	.80
	Germall-115	.30
	Methylparobeu	.20
	Allantoin	.20
	P Glycol	4.00
20	Dowicil 200	.05
	Aloe	1.00
	Water	61.45
	TEA	.80
	Parachlorometaxyleneol	.30
25		

EXAMPLE No. 9

## OINTMENT

30	<u>Contents</u>	<u>Percentage</u>
	Petrolatum	75.00
	Lanolin	24.70
	8 Hydroxy Quinoline Sulfate	.30

EXAMPLE No. 10**OINTMENT**

5	<u>Contents</u>	<u>Percentage</u>
	Petrolatum	75.00
	Lanolin	24.70
	Parachlorometaxyleneol	.30

10 EXAMPLE No. 11**JELLY**

	<u>Contents</u>	<u>Percentage</u>
15	Water	94.03
	Aloe Powder	.25
	Prop. Glycol	3.00
	Carbopal .	.80
	TEA	.90
20	Dowicil 200	.05
	Germaben II	.67
	8 Hydroxy Quinoline Sulfate	.30

EXAMPLE No. 12

25

**JELLY**

	<u>Contents</u>	<u>Percentage</u>
	Water	94.03
30	Aloe Powder	.25
	Prop. Glycol	3.00
	Carbopal	.80
	TEA	.90

Dowicil 200	.05
Germaben II	.67
Parachlorometaxylenol	.30

5 EXAMPLE No. 13

## POWDER

	<u>Contents</u>	<u>Percentage</u>
10	Talc	99.00
	Methylparaben	.20
	Propylparaben	.20
	Allantoin	.30
	8 Hydroxy Quinoline Sulfate	.30

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EXAMPLE No. 14

## POWDER

	<u>Contents</u>	<u>Percentage</u>
20	Talc	99.00
	Methylparaben	.20
	Propylparaben	.20
	Allantoin	.30
25	Parachlorometaxylenol	.30

EXAMPLE No. 15

## OIL

30

	<u>Contents</u>	<u>Percentage</u>
	Mineral Oil	98.00
	Lanolin	1.65

8 Hydroxy Quinoline Sulfate	.30
Fragrance	.05

EXAMPLE No. 16

5

## OIL

	<u>Contents</u>	<u>Percentage</u>
	Mineral Oil	98.00
10	Lanolin	1.65
	Parachlorometaxyleneol	.30
	Fragrance	.05

15        While this invention has been described in a preferred embodiment, it will be understood that there are substantial equivalents which fall within the scope of the appended claims.

20        While as can be seen from the above examples a percentage of 0.30 of either 8 Hydroxy Quinoline Sulfate or Parachlorometaxyleneol is preferred in all topical formulations, the percentage may vary between e.g. 0.1 and 0.5 and may be even higher as 0.5, e.g. 0.8. If a combination of 8 Hydroxy Quinoline Sulfate and Parachlorometaxyleneol is used, the total content of both should preferably be within the said limits.

Applicant: TERAD International, Inc., Ogden, Utah 84401  
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Title: Topical Preparations for Human Skin Irritations

C L A I M S

1. Topical preparation for human skin irritations,  
comprising in combination:
  - 8 Hydroxy Quinoline Sulfate; and/or Parachloro-  
metaxilenol; and
  - 5 - a carrier for said sulfate and/or xylenol suitable  
for topical application.
2. A preparation as set forth in Claim 1, wherein said  
carrier ingredients comprise Mineral Oil, Polyethylene,  
10 Petrolatum Jelly, Talc, Lanolin, Allantoin, Kaolin,  
Titanium Dioxide, Iron Oxides and Fragrance.
3. A preparation as set forth in Claim 1 or 2, wherein  
said carrier ingredients comprise Water, Aloe, Propylene  
15 Glycol, Bee Pollen, Collagen, TEA, Stearic Acid,  
Glyceryl Stearate, IPM, Cetyl Alcohol, JoJoBa Oil,  
Ergocalciferol, Tocopherol, Macademia Oil, Herbs Tea,  
Germaben II, and Fragrance.
- 20 4. A preparation as set forth in Claim 1, 2 or 3,  
wherein said carrier ingredients comprise Stearic Acid,  
GMS, Prop. Parobeu, Mineral Oil, Wickenol 163, Solvlan  
98, Acetulan, Vitamin E, Avacado Oil, Selione,

Germall-115, Methylparobeu, Allantoin, P Glycol,  
Dowicil 200, Aloe, Water, and TEA.

5. A preparation as set forth in one of the Claims 1 to  
5 4, wherein said carrier ingredients comprise Pretrola-  
tum, and Lanolin.
6. A preparation as set forth in one of the Claims 1 to  
5, wherein said carrier ingredients comprise Water,  
10 Aloe Powder, Prop. Glycol, Carbopal, TEA, and  
Germaben II.
7. A preparation as set forth in one of the Claims 1 to  
6, wherein said carrier ingredients comprise Talc,  
15 Methylparaben, and Allantoin.
8. A preparation as set forth in one of the Claims 1 to  
7, wherein said carrier ingredients comprise Mineral  
Oil, Lanolin and Fragrance.  
20
9. A preparation as set forth in one of the Claims 1 to  
8, wherein said carrier ingredients comprise Dowicil  
200.
- 25 10. A preparation as set forth in one of the Claims 1 to  
9, wherein said carrier ingredients comprise Propyl-  
paraben.



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# EUROPEAN SEARCH REPORT

0191128  
Application number

EP 85104740.7

DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (Int. Cl.4)
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claims	CLASSIFICATION OF THE APPLICATION (Int. Cl.4)
X	DE - A - 1 617 484 (GAF CORP.) * Example 23; page 3, lines 11-21; page 22, line 23 - page 23, line 22 * --	1,2,5,8	A 61 K 7/48 A 61 K 9/00 A 61 K 31/47 A 61 K 31/055
X	US - A - 4 463 016 (N.L. BURGESS) * Abstract; examples * --	1,10	
X	H. JANISTYN, "Handbuch der Kosmetika und Riechstoffe" 3 <sup>rd</sup> edition, vol. 1, "Die kosmetischen Grundstoffe" 1978 DR. ALFRED HÜTHIG VERLAG, Heidelberg pages 188, 483 * Page 188 p-Chlormetaxylenol; page 483 8-Hydroxychinolin-sulfat * --	1	
X	G.A. NOVAK "Die kosmetischen Präparate" 3 <sup>rd</sup> edition, vol. 2, "Rezeptur Rohstoffe wissenschaftliche Grundlagen", 1984 VERLAG FÜR CHEM. INDUSTRIE H. ZIOLKOWSKY KG, Augsburg pages 970-978 * Pages 972-978 * --	1-10	
The present search report has been drawn up for all claims			
Place of search VIENNA		Date of completion of the search 21-05-1986	Examiner IRMLER
<p><b>CATEGORY OF CITED DOCUMENTS</b></p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons &amp; : member of the same patent family, corresponding document</p>			



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Office

# EUROPEAN SEARCH REPORT

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0191128  
Application number

DOCUMENTS CONSIDERED TO BE RELEVANT			EP 85104740.7
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.4)
X	"HANDBOOK OF NON-PRESCRIPTION DRUGS" 5 <sup>th</sup> edition, Pub. American Pharmaceutical Association, 1977 pages 317-323  * Pages 321-323 *	1	
A	DD - A - 123 640 (G. SYDOW)  * Claim 1 *	1	
A	GB - A - 2 076 286 (QUINODERM LTD.)  * Example *	1	
A	GB - A - 1 539 771 (QUINODERM LTD.)  * Example 1 *	1	
A	US - A - 4 485 091 (H. FITTON)  * Example 1 *	1	TECHNICAL FIELDS SEARCHED (Int. Cl.4)
A	US - A - 3 904 754 (J.V. MORELLE)  * Example 9 *	1	
A	H. JANISTYN, "Handbuch der Kosmetika und Riechstoffe" 2 <sup>nd</sup> edition, vol. 3, "Die Körperpflegemittel" 1973  DR. ALFRED HÜTHIG VERLAG, Heidelberg pages 494-499  -----	1-10	
The present search report has been drawn up for all claims			
Place of search VIENNA		Date of completion of the search 21-05-1986	Examiner IRMLER
<p><b>CATEGORY OF CITED DOCUMENTS</b></p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons &amp; : member of the same patent family, corresponding document</p>			